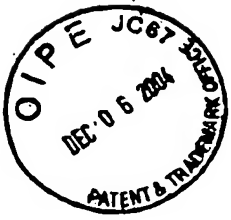


GAS SENSOR AND METHOD OF HEATING THE SAME



BACKGROUND OF THE INVENTION

Field of the Invention:

The present invention relates to a gas sensor having a ceramic substrate in which a heater for heating the gas sensor is embedded. Further, the present invention relates to a method of heating the gas sensor. The gas sensor measures oxides such as NO, NO₂, SO₂, CO₂, and H₂O and inflammable gases such as CO and C_nH_m in atmospheric air and exhaust gas discharged from vehicles.

Description of the Related Art:

Various measuring systems and apparatuses for measuring concentration of gas components in a measurement gas have heretofore been proposed.

For example, according to a method of measuring concentration of NO_x in a measurement gas such as exhaust gas, NO_x-reducing ability of Rh is utilized. A sensor having a Pt electrode and an Rh electrode formed on an oxygen ion-conductive solid electrolyte such as zirconia is used to measure an electromotive force generated between the electrodes.

However, the sensor is likely to be affected by noises, since the electromotive force changes significantly depending on the change of oxygen concentration in the measurement gas (exhaust gas), and the electromotive force does not change significantly depending on the change of NO_x concentration.

*12/17/03
approved
for entry*